

IN THE CLAIMS:

Please cancel claims 9-19, 21-25, 30-37, 39, 42-50, 52, 54-58, 60 and 61 without prejudice to applicants filing one or more divisional applications. Please also cancel claims 1-7, 26-29 and 41 and enter therefor new claims 63-73:

Suh D1
--63. A Hepatitis C virus polynucleic acid, having a nucleotide sequence which is unique to at least one of the new HCV types 7, 9, 10 or 11, or, to at least one of the subtypes 1d, 1e, 1f, 1g, 2e, 2f, 2g, 2h, 2i, 2k, 2l, 3g, 4k, 4l or 4m, or the complement thereof.

*B
mb
E*
64. A polynucleic acid according to claim 63 which is chosen from the group consisting of the nucleotide sequences having SEQ ID 1, 3, 5, 7, 9, 11, 13 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103 or 105, or the complement thereof.

Suh D2
65. A polynucleic acid according to claim 63 encoding an HCV polyprotein comprising in its amino acid sequence at least one of the following amino acid residues; I15, C38, V44, A49, Q43, P49, Q55, A58, S60 or D60, E68 or V68, H70, A71 or Q71 or N71, D72, H81, H101, D106, S110, L130, I134, E135, L140, S148, T150 or E150, Q153, F155, D157, G160, E165, I169, F181, L186, T190, T192 or I192 or H192, I193, A195, S196, R197 or N197 or K197, Q199 or D199 or H199 or N199, F200 or T200, A208, I213, M216 or S216, N217 or S217 or G217 or K217, T218, I219, A222, Y223, I230, W231 or L231, S232 or H232 or A232, Q233, E235 or L235, F236 or 6236, F237, L240 or M240, A242, N244, N249, I250 or K250 or R250, A252 or

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Response to Restriction/Election of Species Requirement
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C252, A254, I255 or V255, D256 or M256, E257, E260 or K260, R261, V268, S272 or R272, I285, G290 or F290, A291, A293 or L293 or W293, T294 or A294, S295 or H295, K296 or 3296, Y297 or M297, I299 or Y299, I300, S301, P316, S2646, A2648, G2649, A2650, V2652, Q2653, H2656 or L2656, F2659, K2663 or 12663, A2667 or V1667, D2677, L2681, M2686 or Q2686 or E2686, A2692 or K2692, H2697, I2707, L2708 or Y2708, A2709, A2719 or M2719, F2727, T2728 or D2728, E2729, F2730 or 72730, I2745, V2746 or E2746 or L2746 or K2746, A2748, S2749 or P2749, R2750, E2751, D2752 or N2752 or S2752 or T2752 or V2752 or I2752 or Q2752, S2753 or D2753 or G2753, D2754, A2755, L2756 or Q2756, R2757, with said notation being composed of a letter representing the amino acid residue by its one-letter code, and a number representing the amino acid numbering as shown in Table 1, or a part of said polynucleic acid which is unique to at least one of the HCV subtypes or types as defined in claim 63, and which contains at least one nucleotide differing from previously known HCV nucleotide sequences, or the complement thereof.

66. A polynucleotide acid according to claims 63 to 65, with said polynucleic acid encoding an HCV polyprotein comprising in its amino acid sequences at least one amino acid sequence chosen from the group consisting of the amino acid sequences having SEQ ID 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104 or 106, or a part of said polynucleic acid which is unique to at least one of the HCV subtypes or types as defined in

claims 63 and 64, and which contains at least one nucleotide differing from known HCV nucleotide sequences, or the complement thereof.

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67. A polynucleic acid according to any of claims 63 to 65, with said polynucleic acid encoding an HCV polyprotein comprising in its amino acid sequence at least one amino acid sequence chosen from the group consisting of the amino acid sequences having SEQ ID 107 to 207 or a part of said polynucleic acid which is unique to at least one of the HCV subtypes or types as defined in claims 63 and 64, and which contains at least one nucleotide differing from previously known HCV nucleotide sequences, or the complement thereof.

68. A polynucleic acid according to any of claims 63 to 67 which codes for the 5' UR, the Core/E1 and the NS4 or the NS5B region or a part thereof.

69. A recombinant polypeptide encoded by a polynucleic acid according to any of claims 63 to 68, or a part thereof which is unique to at least one of the HCV subtypes or types as defined in claims 63 and 64, and which contains at least one amino acid differing from previously known HCV types or subtypes amino acid sequences, or an analog thereof being homologous and biologically equivalent to said polypeptide.

70. A method for production of a recombinant polypeptide of claim 69, comprising:

transformation of an appropriate cellular host with a recombinant vector, in which a polynucleic acid or a part thereof according to any of claims 63 to 68 has been inserted under the control of the appropriate regulatory elements, culturing said transformed cellular host under conditions enabling the expression of said insert, and harvesting said polypeptide.

B 19 71. A recombinant expression vector comprising a polynucleic acid or a part thereof according to any of claims 63 to 68 operably linked to prokaryotic, eukaryotic or viral transcription and translation control elements.

10 72. A host cell transformed with a recombinant vector according to claim 71.

Sue D 73. A peptide corresponding to an amino acid sequence encoded by at least one of the polynucleic acids according to any of claims 63 to 68, with said peptide comprising an epitope which is unique to at least one of the HCV subtypes or types as defined in claims 63 and 64, and with said peptide containing at least one amino acid differing from any previously known HCV type or subtype amino acid sequences, or an analog thereof being homologous and biologically equivalent...